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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/766,422	01/27/2004	Curtis A. Trudeau	56466.85051-001	4140

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EXAMINER	
BROWN, DREW J	
ART UNIT	**PAPER NUMBER**
3616	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/15/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/766,422	TRUDEAU ET AL.	
	Examiner	Art Unit	
	Drew J. Brown	3616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *2/22/07 (amendment after final)*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16,18,20 and 23-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *11-16, 18, and 23-27* is/are allowed.

6)☒ Claim(s) *1,2,4-10 and 20* is/are rejected.

7)☒ Claim(s) *3* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 5 is objected to because of the following informalities: In line 2, "electronic height control system" should be changed to --electronic ride height control system--. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 5-10, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Hiebert et al. (U.S. Pat. No. 7,066,474 B2).

Hiebert et al. discloses a vehicle including an electronic ride height control system in communication with a plurality of air springs secured between at least one vehicle axle and at least one vehicle frame element (column 4, lines 10-22), comprising a sensor that measures a first angle (claim 3, roll angle, lines 57-58) of a first vehicle axis and a second angle (claim 3, pitch angle, lines 57-58) of a second vehicle axis relative to a horizontal plane, communicating information relating to the first and second angles to a controller (claim 3, line 59), processing the information with the controller to generate leveling instructions (claim 3, lines 60-61), and automatically adjusting at least one of the air springs via the electronic ride height control system based on the leveling instructions to alter a distance between the vehicle axle and the vehicle frame element (column 3, lines 41-46), wherein at least one of the first angle of the first vehicle axis and the second angle of the second vehicle axis relative to the horizontal plane is changed, whereby at least one of the first vehicle axis and the second vehicle axis is at least one of leveled

relative to the horizontal plane and brought closer to being leveled relative to the horizontal plane (claim 3, lines 62-65). The controller at least one of controls and overrides the electronic ride height control system in the adjusting step (claim 3), and the first vehicle axis is a side to side axis of the vehicle and the second axis is a fore to aft axis of the vehicle (claim 3, pitch and roll). The controller processes information relating to the orientations that the sensor measures and generates leveling instructions based on the information, where the controller is operable in a self leveling mode, wherein the controller is enabled to automatically adjust as the vehicle moves, via at least one inflation and deflation at least one of the air springs via the electronic ride height control system based on the leveling instructions, wherein the orientation of at least one of the at least two vehicle axes relative to the horizontal plane is changed (column 3, lines 23-46). Hiebert et al. discloses a standard leveling mode, wherein the controller is incapable of automatically adjusting at least one of the air springs via the electronic ride height control, so that the electronic ride height control can operate without being controlled by the controller (column 2, lines 15-24). The controller is an electronic control unit, and the sensor is at least one leveling sensor (column 3, lines 34-41).

The controller has a self leveling mode for automatically adjusting at least one of the plurality of fluid suspension elements via the electronic ride height control system based on the leveling instructions, wherein the angle of the vehicle axis relative to the horizontal plane is changed, whereby the vehicle axis is at least one of leveled relative to the horizontal plane and brought closer to being leveled relative to the horizontal plane (column 2, lines 20-25). The controller also has a standard leveling mode, wherein the controller is incapable of automatically adjusting at least one of the plurality of fluid suspension elements via the electronic ride height control, so that the electronic ride height control can operate without being controlled by the controller (column 4, lines 10-14).

With respect to claims 5 and 10, the controller at least one of controls and overrides the electronic height control system in the adjusting step (column 4, lines 10-14).

With respect to claim 6, the vehicle axis is at least one of a side to side axis of the vehicle and a fore and aft axis of the vehicle (column 4, lines 1-4).

With respect to claim 8, the measuring means is at least one leveling sensor (16, 17).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hiebert et al. in view of Schneider et al. (U.S. Pat. No. 5,913,525).

Hiebert et al. discloses the claimed invention as discussed above but does not disclose outputting the information to an operator via at least one of a display and an audible indicator to inform the operator of at least one of whether or not the first vehicle axis is level relative to the horizontal plane, whether or not the first vehicle axis is being leveled relative to the horizontal plane, whether or not the first vehicle axis is within a range of potential angles that will enable the first vehicle axis to be leveled relative to the horizontal plane, and whether or not the first vehicle axis is leveled to a tolerance relative to the horizontal plane.

However, Schneider et al. does disclose outputting the information to an operator via a display indicator to inform the operator of at least one of whether or not the vehicle axis is level relative to the horizontal plane, whether or not the vehicle axis is being leveled relative to the horizontal plane, whether or not the vehicle axis is within a range of potential angles that will enable the vehicle axis to be leveled relative to the horizontal plane, and whether or not the vehicle axis is leveled to a tolerance relative to the horizontal plane (column 2, lines 63-67 and column 3, lines 1-9).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Hiebert et al. in view of the teachings of Schneider et al. to output the information to an operator via a display indicator that informs the operator of the leveling condition so that the operator is aware of the vehicle orientation with respect to the horizontal plane and can manually level the vehicle accordingly, thus saving time attempting to level the vehicle.

Allowable Subject Matter

6. Claims 11-16, 18, and 23-27 are allowed.

7. Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

8. Applicant's arguments, see page 11 and 12, filed 11/21/06, with respect to the rejection(s) of claim(s) 1 and 7 under 35 U.S.C. 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Hiebert et al. and Schneider et al. Hiebert et al. discloses the adjustment of air springs via the electronic ride height control system based on leveling instructions.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Drew J. Brown whose telephone number is 571-272-1362. The examiner can normally be reached on Monday-Thursday from 8 a.m. to 4 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul N. Dickson can be reached on 571-272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Drew J. Brown
Examiner
Art Unit 3616

db
3/13/07

3/13/07

PAUL N. DICKSON
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